GL5010R

10-12 Port Industrial Managed Gigabit L3 Router

The GL5010R Industrial L3 routers from Actelis Networks® are high density hardened, fanless fiber fed routers able to support two to four 1G SFP interfaces and up to 8-10 RJ45 gigabit interfaces per device.

The GL5010R is part of Actelis' DIN Rail family of access switching products designed for industrial, intelligent traffic network, surveillance, pipeline and utility applications. The GL5010R family are cost optimized, managed GE switches supporting multiple one gigabit Ethernet connections that allow multiple sensors or cameras at various locations to be connected in a linear chain, MSTP/RSTP/STP mesh or Fast healing ERPS ring configurations.

The GL5010R family offers wire-speed switching across 10-12 ports, featuring an extremely small factor, fanless design, and DIN rail mounting, the GL5010R family is ideal for deployment in almost any traffic, utility, or industrial networks.

The GL5010R family also supports L3 functionality including Static Routing, RIP, OSPF and VRRP.

Environmentally hardened with redundant power inputs, and featuring a robust, field-proven design, the unit is protected against over voltage and over current conditions, ensuring high reliability and trouble-free operation.

Interoperable with any standard Ethernet switch, router or hub GL5010R devices seamlessly integrate into any Ethernet network. The GL5010R-8J2F and the GL5010R-10J2F are equipped with two GE Small Form-Factor Pluggable (SFP) uplinks, whilst the GL5010R-8J4F has four GE uplinks. The GL5010R-8J2F and the GL5010R-8J4F support 8x 10/100/1000Base-T copper RJ45 ports whilst the GL5010R-10J2F supports 10 RJ45 ports. The GL5010R allows assignment of a service/device per port.

GL5010R incorporates comprehensive set of mechanisms that include high level authentication, advanced encryption capabilities, as well as sophisticated filtering and access control using layer 2 processes.

The GL5010R provides 802.1q VLAN-aware wire-speed bridging, double tagging (VLAN stacking) for end-user VLAN transparency, L2 (Ethernet priority) classification with eight queues per port, fast healing rings, MSTP/RSTP/STP, Dynamic Link Aggregation, bandwidth monitoring, Multicast/Broadcast limiting, as well as IGMP bandwidth snooping for video distribution applications.

The GL5010R can be managed through Actelis' MetaASSIST EMS multi-platform Element Management System*. Various user interfaces/protocols are supported including a WEB based GUI, Cisco Like CLI as well as SNMP MIBs enabling seamless integration with third-party Network Management Systems (NMS).

Highlights

- **High Density Managed** GE router – 10-12 ports
- **Industrial Design** - Harsh environments, wide temperature range compact IP30
- **Flexible Network Redundancy -** RSTP, MSTP, ERPS, LACP
- **Advanced Traffic Management** - QoS- CoS, DSCP, WRR/SPQ Queuing, Storm Protection
- **L2 wire speed switching** , 9K Jumbo frames
- **L3 Routing capabilities -** RIP, OSPF, VRRP
- **Multicasting** - IGMP Snooping - v1/v2/v3, up to 512 groups
- **Advanced Security:** IEEE 802.1x, RADIUS & TACACS+
- **SNMP** v1/v2c/v3
- **Easy Deployment / Configuration** - USB storage, configuration-free replacement
- **Industrial automation protocols** Ethernet/IP and Modbus TCP
- **Superior Reliability and Availability**

High Performance Broadband Over Fiber
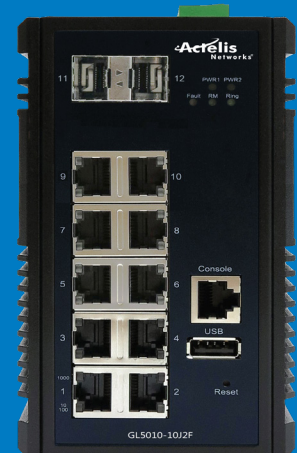
GL5010R

Specifications

Interfaces

Ethernet (Network/User) -
- **10/100/1000Base-T:** 8 ports
  (GL5010R-8J2F, GL5010R-8J4F)
  10 ports: (GL5010R-10J2F)
  Connector: RJ45, Auto-MDI/MDI-X
- **1000Base-X:** 2 ports
  (GL5010R-8J2F, GL5010R-10J2F)
  4 ports: (GL5010R-8J4F)
  Connector: SFP, MSA compliant

Management (out-of-band)
- **Console**/**Craft:** RS-232
  Connector: RJ-45
- **Storage**- Firmware update, configuration backup, restore, boot up and syslog
  Connector: USB 2.0

Alarm Contacts
- Terminal Block, 1 input, 1 output

LAN Protocols
- **Ethernet operating mode: Store & forward, L2 wire-speed/non-blocking (20Gbps Switch fabric)**
- **Switching Fabric: 20Gbps (8J2F)**
                      24Gbps (8J4F, 10J2F)
- **MAC addresses: 16K**
- **Jumbo frames: 9216 Bytes**
- **Flow control: IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex)**
- **Max VLANs: 4094**
- **VLAN Types: Port-based VLANs**
- **VLAN Tagging:** IEEE 802.1Q
- **Double Tagging:** Q-in-Q **IEEE 802.1ad**
- **Multicast:** IGMP snooping V1/V2/V3 up to 512 multicast groups, IGMP Querier
- **Discovery Mechanisms: LLDP** IEEE 802.1ab

Traffic Management and QoS
- **Priority IEEE 802.1p QoS**
- **Queues per port: 8**
- **Traffic Shaper: port-based shaping**
- **Scheduler: SPQ, WRR**

Redundancy
- **Ring:** ERPSv2
- **Spanning Tree Protocol:**
  STP - IEEE 802.1D,
  RSTP IEEE 802.1w,
  MSTP IEEE 802.1s
- **Link Aggregation with LACP**
  Static or Dynamic

L3 Protocols
- **Static Routing**
- **RIP v1/v2**
- **OSPF v2**
- **VRRPv2**

Management Applications
- **EMS**: MetaASSIST EMS*

Security Protocols
- **Port security:** IP and MAC-based access control
- **Authentication: I**EEE 802.1X
- **Storm Control:** Multicast/Broadcast/Flooding Storm Control

Management Protocols

User Management interfaces
- Command line interface: Cisco-like CLI
- WEB-GUI
- SNMP: V3, V2C, V1
- Telnet

Secure Access
- HTTPS, SSH, SSL, Radius, TACACS+

Configuration
- TFTP, USB

Diagnostic Syslog
- **Per VLAN mirroring**

DHCP
- Client, Server, Snooping, Relay Agent with option Option 82

Time Sync
- NTP
- IEEE1588v2 OC (Software Timestamp)
- TC (Hardware Timestamp)

Physical
- **Dimensions :**
  Height: 5.7" / 145 mm,
  Depth: 4.6" / 118 mm, **Width:** 2.8" / 72 mm
- **Weight:** 2 lbs / 0.87 kg
- **Mounting**: Din Rails, Wall mounting (Optional)

Power
- Dual DC (integrated): 12-48VDC

Environmental
- **Operating Temp.** -40° to +75°C
- **Storage Temp.** -40° to +85°C
- **Relative humidity:** Up to 95%, non condensing

Regulatory Compliance/Certifications

Safety
- IEC62368, UL62368

EMC
- CE EN 55032 Class A, FCC Part 15
- IEC61000-4-2, -3, -4, -5, -6, -8
- EN 50121-4

CE
- EMC and Safety

Vibration, shock & freefall
- IEC68-2-6, -27, -32

RoHS and WEEE
- RoHS (Pb free) and WEEE compliant